REMARKS

Claims 1, 3, 5, 7, 8, 36 and 49-51 are currently under consideration in this application.

Claims 4 has been cancelled as being a duplicate of claim 5. Claims 6 and 37 have been cancelled without prejudice.

Claims 49-51 have been added.

Claim 1 has been amended.

I. Amended Claim 1.

Claim 1 has been amended to incorporate an upper molecular size limitation. In addition, the claim was amended to clarify that the claim is directed to an isolated truncated tryptophanyl-tRNA synthetase, as suggested by the Examiner. Support for this amendment can be found in the specification at page 59, line 29 where the molecular weight of full length tryptophanyl-tRNA synthetase is disclosed. No new matter is added by this amendment.

II. Newly Added Claims 49-51.

Newly added claims 49-51 are drawn to individual members of the Markush group set forth in cancelled claim 6. Support for these claims are found in original claim 6. No new matter is added by these claims.

III. Claim 1 Meets all Requirements of 35 U.S.C. §112, First Paragraph.

The rejection of claim 1 under the first paragraph of 35 U.S.C. §112, for lack of enablement of the full scope of the claims has been maintained from the previous Office Action, Paper No. 9. Applicants point out that claim 2 was not rejected on this ground in the previous Office Action and was presumably enabled. Present claim 1 includes all of the limitations of cancelled claim 2. Furthermore, claim 1 has been amended to introduce an upper molecular weight limit and to clarify that the claim is drawn to an isolated truncated tryptophanyl-tRNA synthetase. The present amendments to claim 1, and cancellation of claims 6 and 37, which were rejected together with claim 1 are believed to address all of the enablement concerns raised in the Final Office Action. Therefore, Applicants request that the rejection of claim 1 under §112, first paragraph be withdrawn.

Claims 49-51 have been added to replace cancelled claim 6. These new claims do not contain the limitation "and fragments thereof comprising the amino acid

sequence -Asp-Leu-Thr-" which was the basis for rejecting claim 6. Therefore, claims 49-51 meet all requirements of §112, first paragraph, as well.

V. Claims 1, 5, 7, 8, 37 and 49-51 are Patentable over Fleckner *et al.*

Claims 1, 5, 7, 8, and 37 stand rejected under 35 U.S.C. §102(b) as being anticipated by Fleckner *et al.* (*Proc. Natl. Acad. Sci.*, Vol. 88, pp. 11520-11524 (1991)). This rejection is unwarranted. Fleckner *et al.* disclose only full length tryptophanyl-tRNA synthetase having a molecular weight of about 54 kilodaltons (see page 11521, first column, first paragraph under the heading RESULTS). In contrast, all of the present claims, including newly added claims 49-51, are directed to truncated tryptophanyl-tRNA synthetase polypeptides having a molecular weight of at least 46 kilodaltons and less than full length tryptophanyl-tRNA synthetase having a molecular weight of 54 kilodaltons. Accordingly, Fleckner *et al.* cannot anticipate the present claims and Applicants respectfully request that this rejection be withdrawn.

VI. Claims 1, 3, 5, 7, 8, and 49-51 are Patentable over Lemarie *et al.*

Claims 1, 3, 5, 7, and 8 have been rejected under 35 U.S.C. §102(b) as being anticipated by Lemarie *et al.* (*Eur. J. Biochem.*, Vol. 51, pp. 237-252 (1975)). Lemarie *et al.* disclose the isolation of full length tryptophanyl-t-RNA synthetase and two lower molecular weight variants thereof. According to Lemarie *et al.*, full length tryptophanyl-tRNA synthetase is a dimeric protein having a molecular size of about 108 kilodaltons, and consisting of two identical chains of 54 kilodalton size (see Lemarie et al., page 242, first col., first paragraph, and Table 1). This description is in agreement with the description of tryptophanyl-tRNA synthetase in the present application. Lemarie *et al.* also describe shortened versions of the enzyme having molecular sizes of 85 kilodaltons and 82 kilodaltons, each of which are also dimers consisting of two identical polypeptides having a molecular size of about 41 kilodaltons (*Id.*). Lemarie *et al.* do not teach or suggest a truncated tryptophanyl-tRNA synthetase having a size of at least about 46 kilodaltons and less than full length tryptophanyl-tRNA synthetase having a size of about 54 kilodaltons, as required by all of the present claims. Therefore, all of the present claims are patentable over Lemarie *et al.*

VII. Conclusion.

All of the present claims are patentable over the applied art and are enabled. Reconsideration and allowance of all claims is respectfully solicited. Should the Examiner find the foregoing unpersuasive, Applicants request that the present Amendment be entered to place the application in better form for appeal.

Respectfully submitted,

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